IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF	)
	) GROUP NO: 1616
KONZE ET AL	)
	) EXAMINER: JOHN D. PAK
SERIAL NO.: 10/531,136	)
	)
FILED: APRIL 11, 2005	)
	)
TITLE: ACTIVE SUBSTANCE COMBINATIONS	)
HAVING INSECTICIDAL AND	)
ACARIDIDAL PROPERTIES	)

DECLARATION UNDER 37 CFR 1.132

Commissioner for Patents

Alexandria, VA 22313-1450

Sir:

Dr. Wolfgang Thielert hereby declares that:

1.   He is an agronomist having studied at the University of Bonn, Germany; he received his doctor's degree in agriculture at the University of Bonn, Germany, in 1984; he entered the employ of Bayer in 1984; and he has specialized in plant protection (phytopharmacology).

2.   He is familiar with the subject matter of the above-identified United States patent application.

3.   The following tests were carried out under his supervision and direction

Formula for the efficacy of the combination of two compounds

The expected efficacy of a given combination of two compounds is calculated as follows (see S.R. Colby, "Calculating Synergistic and Antagonistic Responses of Herbicide Combinations", *Weeds*, <u>15</u>, pages 20-22, 1967):

If

X is the efficacy expressed in % mortality of the untreated control for test compound A at a concentration of m ppm,

Y is the efficacy expressed in % mortality of the untreated control for test compound B at a concentration of n ppm,

E is the efficacy expressed in % mortality of the untreated control using the mixture of A and B at m and n ppm,

then $E = X + Y - \dfrac{X \cdot Y}{100}$

If the observed insecticidal efficacy of the combination is higher than the one calculated as "E", then the combination of the two compounds is more than additive, i.e., there is a synergistic effect.

EXAMPLE L *Phaedon cochleariae* larvae test

Solvent: 7 parts by weight of dimethylformamide

Emulsifier: 2 parts by weight of alkylaryl polyglycol ether

To produce a suitable preparation of active compound, 1 part by weight of active compound is mixed with the stated amount of solvent and emulsifier, and the concentrate is diluted with emulsifier-containing water to the desired concentration. Cabbage leaves (*Brassica oleracea*) are treated by being dipped into the preparation of the active compound of the desired concentration and are infested with mustard beetle larvae (*Phaedon cochleariae*) as long as the leaves are still moist. After the specified period of time, mortality in % is determined. 100 % means that all the beetle larvae have been killed; 0 % means that none of the beetle larvae have been killed.

In this test, the following combination according to the present application showed a synergistic effect in comparison to the single compounds:
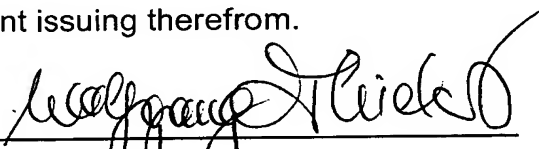
<u>Table L</u> Plant Damaging Insects

Phaedon cochleariae – Larvae Test

Active ingredient	Concentration in ppm	Mortality in % after 6 days	
Thiacloprid	3	0	
(I)	0.6	0	
		<u>exp.</u>*	<u>calc.</u>**
Thiacloprid + (I) (5:1) (according to the invention)	3 + 0.6	25	0

* exp. = Efficacy in experiment

** calc. = Expected efficacy calculated according to Colby-Formula

4.   The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

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Dr. Wolfgang Thielert

Date: ____11. 04.____, 2006